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EXAMINER

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ART UNIT PAPER NUMBER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/855,989  
Filing Date: May 15, 2001  
Appellant(s): BRILL ET AL.

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Patrick G. Burns  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 03 March 2006 appealing from the Office action mailed 29 September 2005.

**(1) Real Party in Interest**

A statement identifying the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,163,092	Soultanian	12-2000
3,735,297	Pfenning	5-1973
3,357,101	Davis	12-1967

5,771,538	Huppert, Sr.	06-1998
5,787,587	Wahl et al.	8-1998
WO 00/27599	Kienzler et al.	05-2000

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-4, 7, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soultanian (6,163,092) in view of Pfenning (3,735,297). In regards to claim 1, Soultanian discloses the invention including a stationary piece (10) having a plurality of laminations (38), a moving piece (12) having a plurality of laminations (40), and the moving piece is hingedly secured to the stationary piece by interlocking the moving piece laminations with the stationary piece laminations (20).

In regards to claim 2, Soultanian discloses an electric coil (14), a movement control system connected to the stationary piece and the moving piece (32) having at least one spring (22) and at least one device for adjusting the tension (34).

In regards to claims 3, 4, and 7, Soultanian discloses the coil is on the stationary piece (Fig. 2), a driver (24) crimped to the moving piece (18) for connection to a motor load (26), and a hinge holder having a first surface that retains the moving piece axially while still allowing the moving piece to rotate (Fig. 2).

In regards to claims 11-13, Soultanian discloses a coil bobbin (16) on the stationary piece around which the coil is wound (Fig. 1), the coil bobbin also has an extension to which the movement control system is connected to (30), the movement

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control system is connected to the driver (Fig. 1), and a low friction insert between the stationary and moving pieces where they are hinged (20).

However, Soultanian fails to disclose the moving piece laminations and the stationary piece laminations form a hinge, which secures the moving piece laminations to the stationary piece laminations.

Pfenning teaches moving piece laminations (16) and the stationary piece laminations (10) form a hinge, which secures the moving piece laminations to the stationary piece laminations (18). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided '092 with a hinge formed by the moving and stationary laminations, as taught by Pfenning, to allow the apparatus to incorporate less parts by substituting a hinge formed by the moving and stationary laminations instead of a third party hinge apparatus.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soultanian in view of Pfenning as applied to claims 1 and 4 above, and further in view of WO 00/27599. Soultanian and Pfenning disclose the invention but fail to disclose a hinge holder having a second surface that biases the moving piece radially while still allowing the moving piece to rotate. WO 00/27599 teaches of a hinge holder having a second surface that biases the moving piece radially while still allowing the moving piece to rotate (22). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided Soultanian in view of Pfenning with a hinge holder having a second surface, as taught by WO 00/27599, to bias the moving piece radially while still allowing the moving piece to rotate.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soultanian in view of Pfenning. Soultanian and Pfenning disclose the invention including that the circular shaped end fits inside the circular shaped opening (Fig. 6 in Soultanian and 18 in Pfenning) and the movement control system is located at a second end of the moving piece (Fig. 12 in Soultanian).

However, Soultanian and Pfenning fail to disclose that the stationary piece has the circular shape at a first end and the moving piece forms the circular shaped opening at a first end. It would have been obvious to one having ordinary skill in the art at the time the invention was made to switch the circular shaped end and the circular shaped opening, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided Soultanian in view of Pfenning with a hinge having the circular shaped end of the stationary piece fitting inside of the circular shaped opening of the moving piece, to allow for an alternate method of forming a hinge.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soultanian in view of Pfenning as applied to claims 1 and 2 above, and further in view of Davis (3,357,101). Soultanian and Pfenning disclose the invention including the movement control system includes a screw (34 in Soultanian) having threads and a head (Fig. 1 in Soultanian).

However, Soultanian and Pfenning fail to disclose the screw being adjustably threaded in an opening in the stationary piece, the screw passes freely through an

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opening in the moving piece, the stationary piece opening is located on one side of the moving piece opening and the screw head is located on the other side of the moving piece opening, a first spring between the stationary and moving pieces, and a second spring between the moving piece and the screw head. Davis teaches a screw (46) being adjustably threaded in an opening in the stationary piece (40), the screw passes freely through an opening in the moving piece (41), the stationary piece opening is located on one side of the moving piece opening and the screw head is located on the other side of the moving piece opening (Fig. 2), a first spring between the stationary and moving pieces (50), and a second spring between the moving piece and the screw head (Fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided Soultanian in view of Pfenning with the movement control system characteristics, as taught by Davis, to allow for a more precise adjustment.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soultanian in view of Pfenning as applied to claims 1 and 2 above, and further in view of Huppert, Sr. (5,771,538). Soultanian and Pfenning disclose the invention but fail to disclose at least one grease channel in the hinge. Huppert, Sr. teaches a grease channel (8) in a hinged structure (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided Soultanian in view of Pfenning with a grease channel, as taught by Huppert, Sr., to allow for a smoother hinged surface.

Claims 17, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soultanian in view of Wahl et al. (5,787,587) and Pfenning. In regards to claim 17, Soultanian discloses the invention including a stationary piece (10) having a plurality of laminations (38) and a coil (14), a moving piece (12) having a plurality of laminations (40), the moving piece is hinged to the stationary piece at one end by interlocking the moving piece laminations directly with the stationary piece laminations (20), a driver (24) at another end of the moving piece (Fig. 2), and a movement control system connected to the stationary piece and the moving piece (32) having at least one spring (22) and at least one device for adjusting the tension (34).

In regards to claims 18 and 21, Soultanian discloses a hinge holder having a first surface that retains the moving piece axially while still allowing the moving piece to rotate (Fig. 2), a coil bobbin (16) on the stationary piece around which the coil is wound (Fig. 1), and the coil bobbin also has an extension to which the movement control system is connected to (30).

However, Soultanian fails to disclose a case having at least one attachment point for securing the motor, a stationary blade, a moving blade adapted for reciprocation across the moving blade, a motor secured to the case at the attachment point, the moving piece laminations and the stationary piece laminations form a hinge which secures the moving piece laminations to the stationary piece laminations, the driver and the moving blade are coupled for movement of the moving blade, the stationary piece and the moving piece have a plurality of laminations and a hinge made of interlocking laminations of the stationary and moving pieces.



Wahl et al. teaches a case having at least one attachment point for securing the motor (Fig. 1), a stationary blade (104), a moving blade (122) adapted for reciprocation across the moving blade (A), a motor secured to the case at the attachment point (Fig. 1), and the driver and the moving blade are coupled for movement of the moving blade (120). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided Soultanian with hair clipper components, as taught by '587, to allow for use as a hair clipper.

Pfenning teaches moving piece laminations (16) and the stationary piece laminations (10) form a hinge, which secures the moving piece laminations to the stationary piece laminations (18). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided '092 with a hinge formed by the moving and stationary laminations, as taught by Pfenning, to allow the apparatus to incorporate less parts by substituting a hinge formed by the moving and stationary laminations instead of a third party hinge apparatus.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soultanian in view of Wahl et al. and Pfenning as applied to claims 17 and 18 above, and further in view of WO 00/27599. Soultanian, Wahl et al., and Pfenning disclose the invention but fail to disclose a hinge holder having a second surface that biases the moving piece radially while still allowing the moving piece to rotate. WO 00/27599 teaches a hinge holder having a second surface that biases the moving piece radially while still allowing the moving piece to rotate (22). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have

provided '092 in view of '587 with a hinge holder having a second surface, as taught by WO 00/27599, to bias the moving piece radially while still allowing the moving piece to rotate.

#### **(10) Response to Argument**

Appellant's arguments that Soultanian '092 in view of Pfenning '297 does not correctly reject claim 1 under 35 U.S.C. 103(a) and that the Pfenning reference is non-analogous art are not correct. The Soultanian reference clearly discloses a stationary piece (10) having a plurality of laminations (38), a moving piece (12) having a plurality of laminations (40), and the moving piece is hingedly secured to the stationary piece by interlocking the moving piece laminations with the stationary piece laminations (20). Soultanian discloses a moving piece with laminations, a stationary piece with laminations, and a hinge piece that pivotally locks the moving piece to the stationary piece. In light of this, Soultanian fails to disclose that the stationary piece and the moving piece form the hinge since Soultanian incorporates a third body that is the hinge. The Pfenning reference was then used to teach to Soultanian that it is old and well known for a moving piece with laminations to form a hinge with a stationary piece with laminations. Appellant argues that since the apparatus taught by Pfenning is a relay it is not a motor and therefore non-analogous. Merriam Webster's Collegiate Dictionary 10<sup>th</sup> Edition defines the term "relay" as a servomotor. In light of this definition, a relay can be considered a motor and therefore, is in the same field of endeavor as the motor of the instant application. The Pfenning references discloses a stationary piece having a plurality of laminations (13), a moving piece having a plurality

of laminations (16), the moving piece is hingedly secured to the stationary piece by interlocking the moving piece laminations with the stationary piece laminations (30), and the moving and stationary pieces form the hinge (18). Pfenning teaches that it is old and well known for a structure including a moving piece being pivotally hinged to a stationary piece to incorporate a hinge that is formed by the moving and stationary pieces and not an additional structure. By the moving and stationary pieces forming the hinge, the amount of parts manufactured/used to create the apparatus is reduced.

Appellant argues that Soultanian fails to disclose interlocking the laminations of the stationary and moving pieces. Merriam Webster's Collegiate Dictionary 10<sup>th</sup> Edition defines the term "interlocking" as to become locked together. Hinge 20, of Soultanian, clearly locks together the moving and stationary laminations.

In summary, the issue is would it have been obvious to combine the moving and stationary parts "formed" hinge of Pfenning with the stationary and moving parts of Soultanian? Soultanian and Pfenning both disclose a moving piece being pivotally hinged to a stationary piece and both can be considered a motor. It would have been obvious to one of ordinary skill in the art, at the time of the invention to interchange old and well-known methods of creating a hinge between similar structures in the same field of endeavors.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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10 May 2006

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